

MULTIPLE STEP ADAPTIVE METHOD FOR TIME SCALING

Abstract

A multiple step adaptive method for time scaling. Synthesizing $S_3[n]$ signal from signal $S_1[n]$ signal and $S_2[n]$ signal. Comprising following steps: (a) calculating a first magnitude of a cross-correlation function of $S_1[n]$ signal and $S_2[n]$ signal according to a first index; (b) comparing the first magnitude with a threshold value; (c) if first magnitude is smaller than threshold value, calculating a first reference magnitude of cross-correlation function of $S_1[n]$ signal and $S_2[n]$ signal according to a first reference index behind the first index by a first determined number, or calculating a second reference magnitude of the cross-correlation function of the $S_1[n]$ signal and the $S_2[n]$ signal according to a second reference index behind the first index by a second number; (d) synthesizing the $S_3[n]$ signal by adding $S_1[n]$ signal to the $S_2[n]$ signal in accordance with a maximum index corresponding to a largest magnitude among all the magnitudes calculated in (c).